

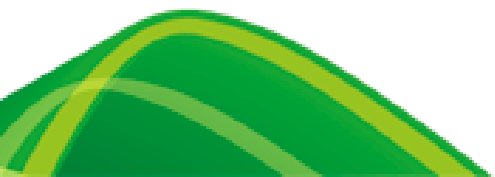
Future challenges and main drivers for the electricity sector – Producer's view

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Main issues

1. About Eesti Energia
2. Positive trends in development of market infrastructure
 - Completion of wholesale spot market in Baltic states
 - New Interconnections are in schedule
3. Negative trends
 - BEMIP plan is not going to be implemented in time (common import policy from 3rd countries)
 - Gate to Russian electricity market
 - Prices do not motivate new investments
4. Main challenges



Eesti Energia is...



Estonian largest energy company

Operations: oil shale mining, electricity and heat production, oil shale oil production



In the **Baltic Sea region**, we sell electricity to customers in all three Baltic States and in Finland. Largest electricity producer in Baltic countries.



Our unique know-how and technology in oil shale processing is in high demand **around the world**, and is a key export in our business portfolio

Baltic electricity market since 1.10.2010

New issues:

1. 100% implicit EST/FI

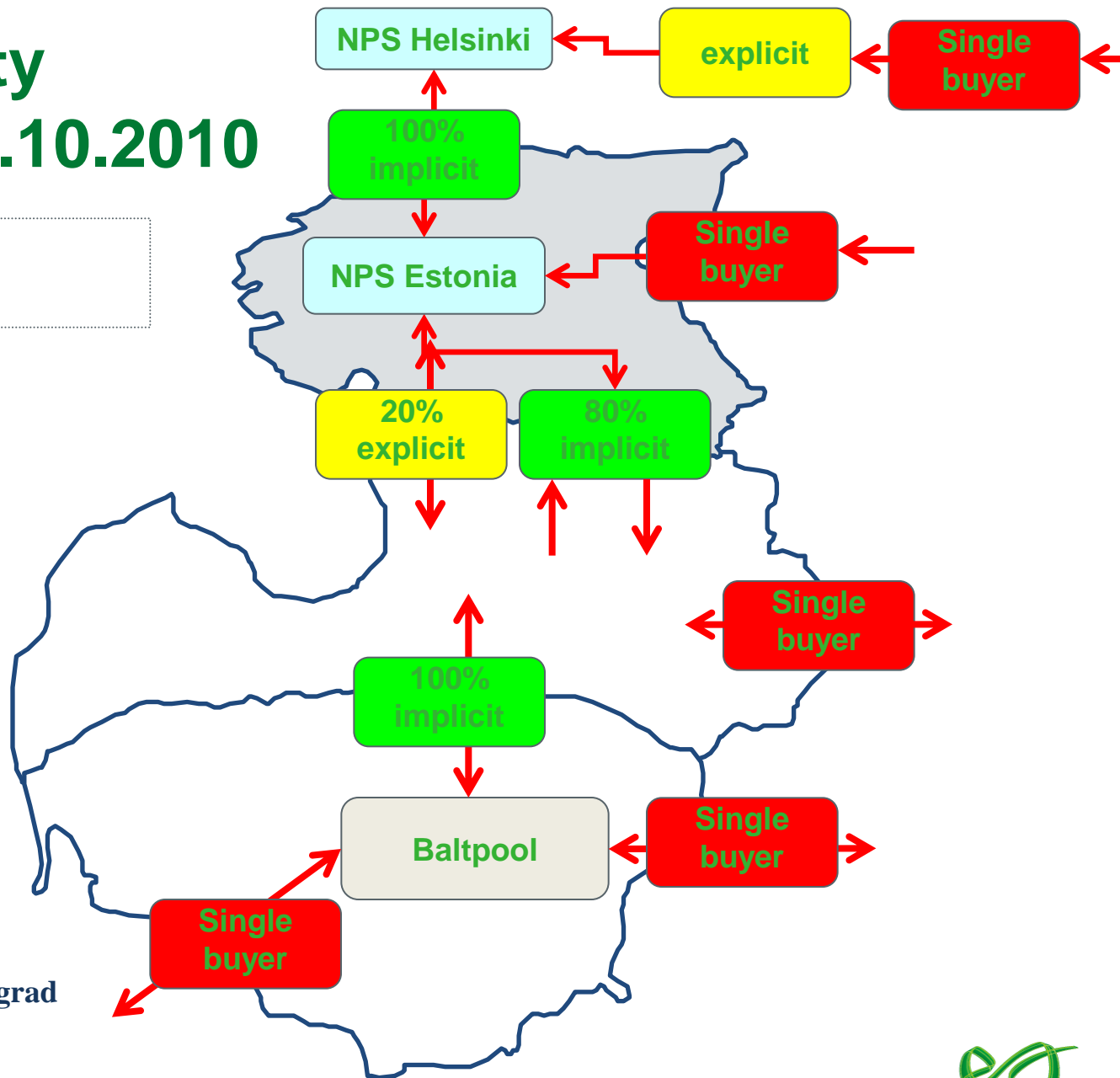
Access to CB-trade:

Single buyer

explicit

implicit

Kaliningrad



Eesti Energia

Baltic electricity market since 18.06.2012

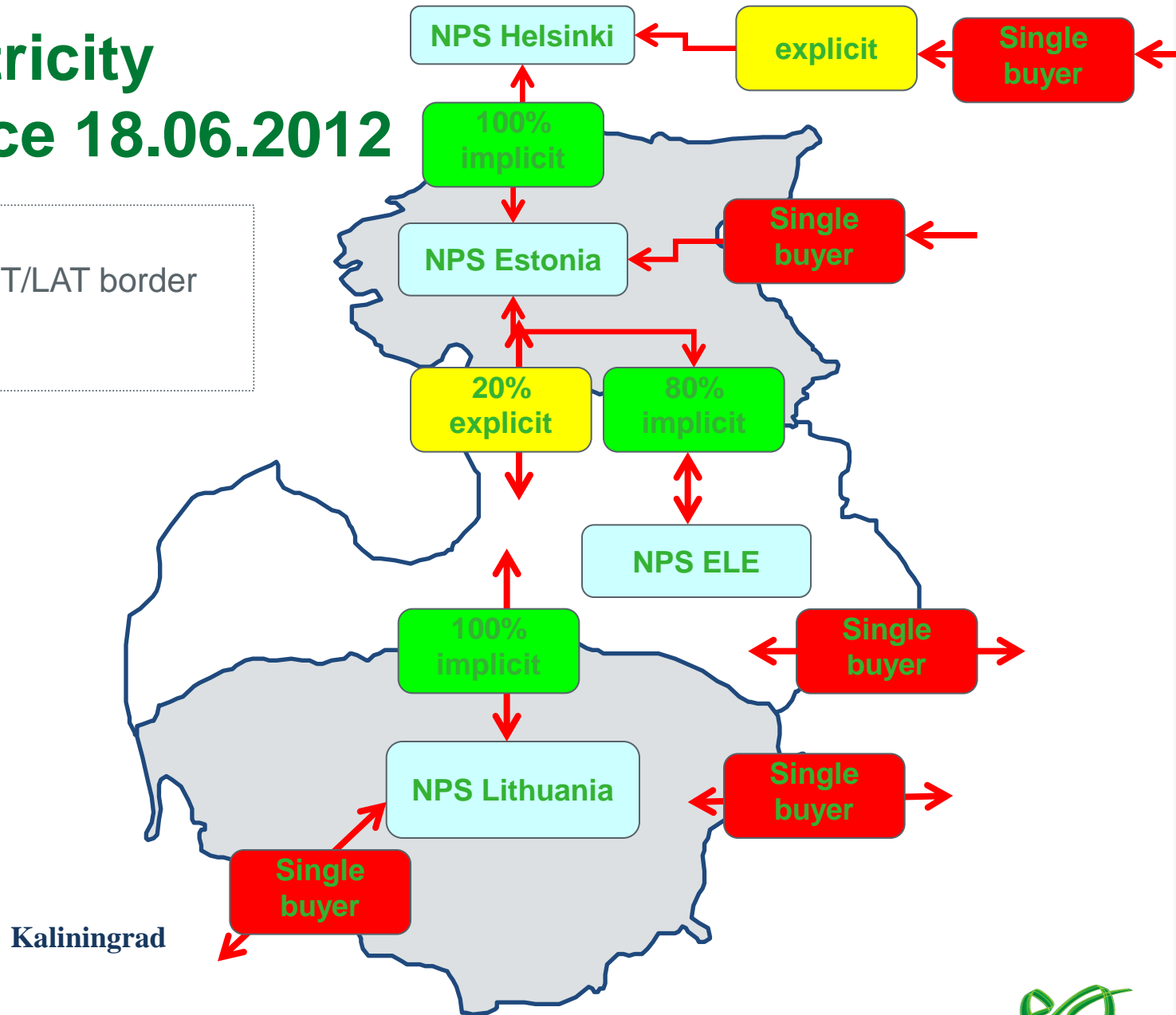
New issues:

1. NPS ELE at EST/LAT border (net delivery)
2. NPS Lithuania

Access to CB-trade:

explicit

implicit



Baltic electricity market after 03.06.2013

New issues:

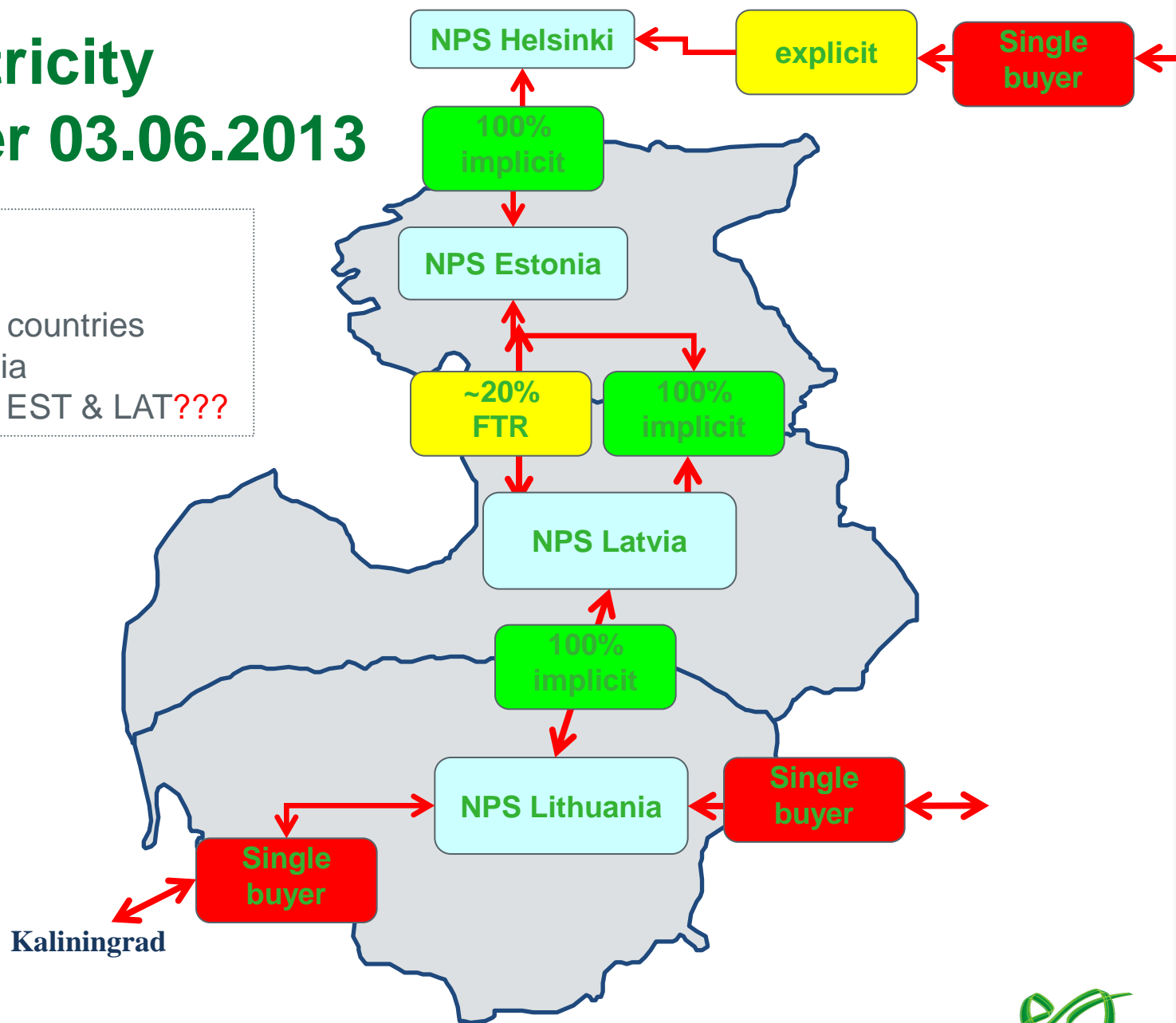
1. NPS Latvia
2. Import from 3rd countries through Lithuania
3. FTR-s between EST & LAT???

Access to CB-trade:

Single buyer

explicit

implicit

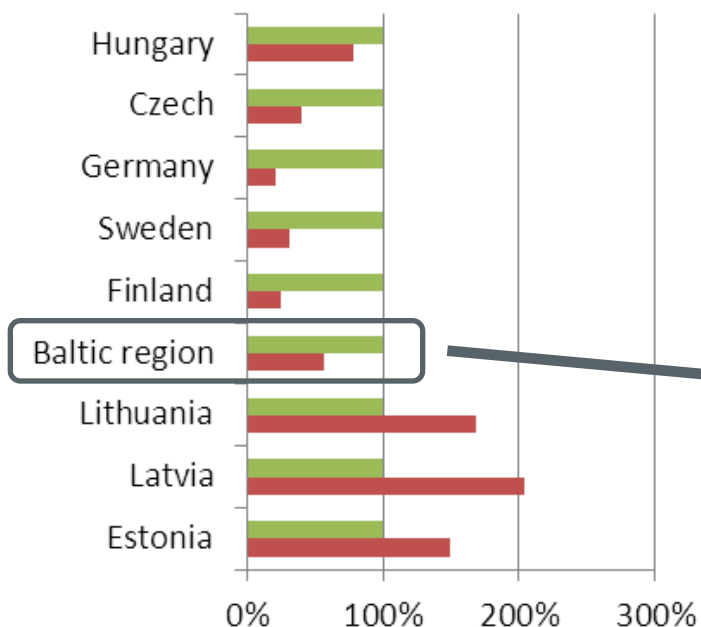


New interconnections are in schedule:

*Rapid increase in interconnection capacity between
Baltic and neighbouring countries*

Current situation:

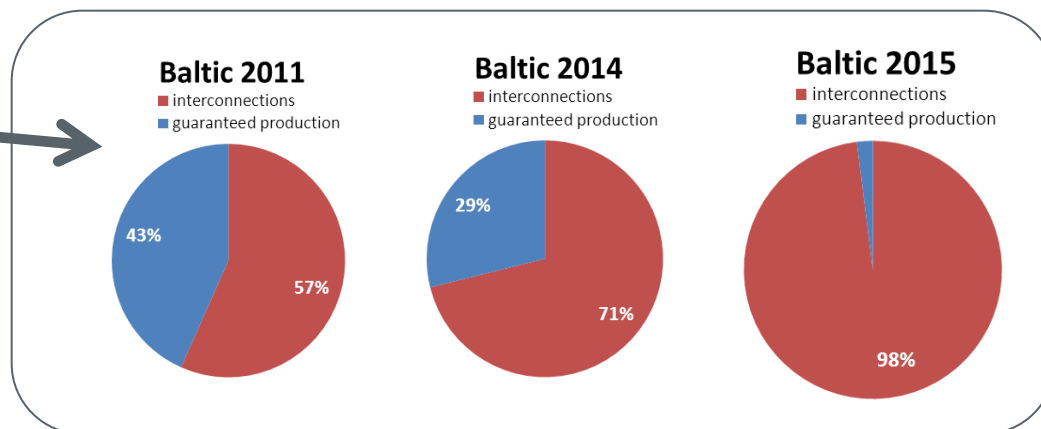
■ Peak demand ■ Interconnections







Additional CB capacities:

2014: + 650 MW EST-FI

2015: + 700 MW LT-SWE
+ 500 MW LT -PL



Baltic Energy Market Interconnection Plan (Step 1)

Project	Short description of the Project	Target time-scales	Status	Responsible body
Step 1: Take preliminary political and business decisions on market integration	<p><i>Political</i></p> <ul style="list-style-type: none"> Baltic Prime Ministers decision to start the Baltic electricity market integration on the basis of the indications forwarded by the HLG Estonian and Lithuanian governments abolish the regulated tariffs for eligible customers at wholesale market. <p><i>Business</i></p> <ul style="list-style-type: none"> Decision by Nord Pool Spot to start NPS Baltic preparation for opening of Estlink price area Decision by Estlink Shareholders to change Capacity Purchase Agreement and Shareholders Agreement for implicit auction on condition of market opening by Day 1 	Summer 2009	   	Prime Ministers, Three Baltic States' Governments Nordpool Spot Estlink shareholders

* Day 1 = 1.4.2010

Baltic Energy Market Interconnection Plan (Step 2)

Project	Short description of the Project	Responsible body
<p>Step 2: What must be completed by 1.4.2010: fulfilment of market opening requirements</p>	<ul style="list-style-type: none"> ☹️ Regulated tariffs have been removed ☹️ Subsidized renewable energy can enter the market without losing subsidies 😐 Separation of TSO activities/roles 😐 Basic transparency rules (Nord Pool Spot rules) 😐 Congestion management method between Estonia-Latvia-Lithuania and a common position towards Russian and Belarus TSO's 😊 Common ITC treatment of the perimeter countries for Estonia, Latvia, Lithuania and Finland 😊 Removal of cross-border restrictions, such as license and tariff in three Baltic States 😊 Introduction by Nord Pool Spot of price area Estlink 😊 Establishment of Lithuanian day-ahead power exchange according to the Nord Pool Spot model, as a temporary solution 	<p>Three Baltic States' and Finnish Regulators and TSOs</p>

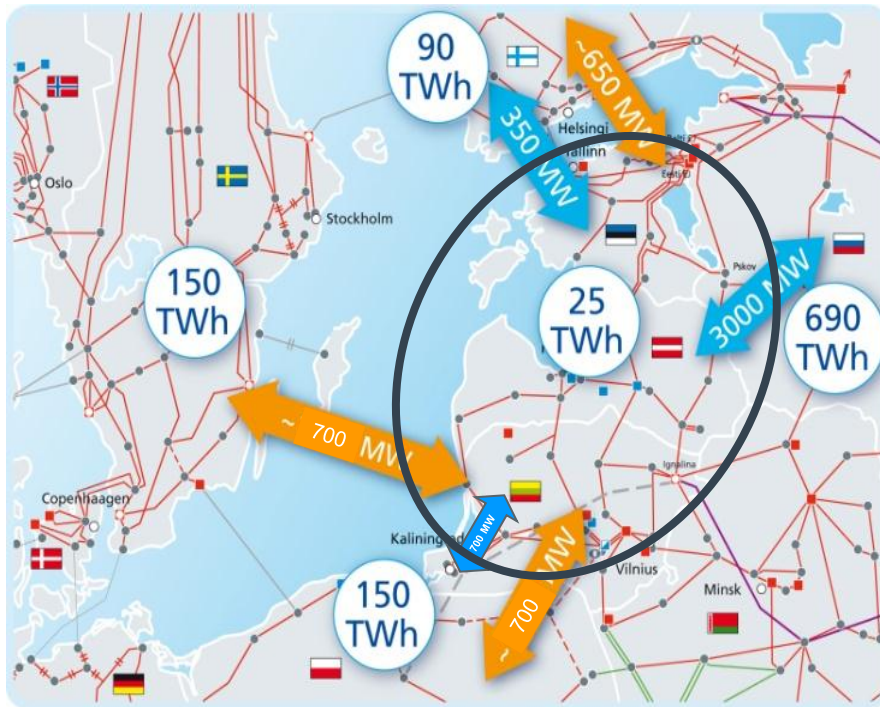


Baltic Energy Market Interconnection Plan (Step 3)

Project	Short description of the Project	Responsible body
Step 3: How to continue the process: market functioning fine tuning 2011-2013	<ul style="list-style-type: none"> 😊 Baltic common day ahead market (based on Nord Pool Spot trading platform) 😊 Stepwise introduction of Intra-day market 😐 Market based congestion management, implicit auction between Baltic countries managed by NPS 😡 Estonia, Latvia, Lithuania and Finland have a common position and trading principles towards non EEA third countries 😐 Transparency according to the ERGEG's North European Electricity Regional Initiative 😡 Common reserves and balancing power market 😡 Harmonized imbalance settlement and imbalance pricing 😡 Common market monitoring and surveillance rules 😐 Development of financial markets (OTC) 	Three Baltic States' and Finnish Regulators and TSOs



Baltic region is European largest gate to Russian electricity market

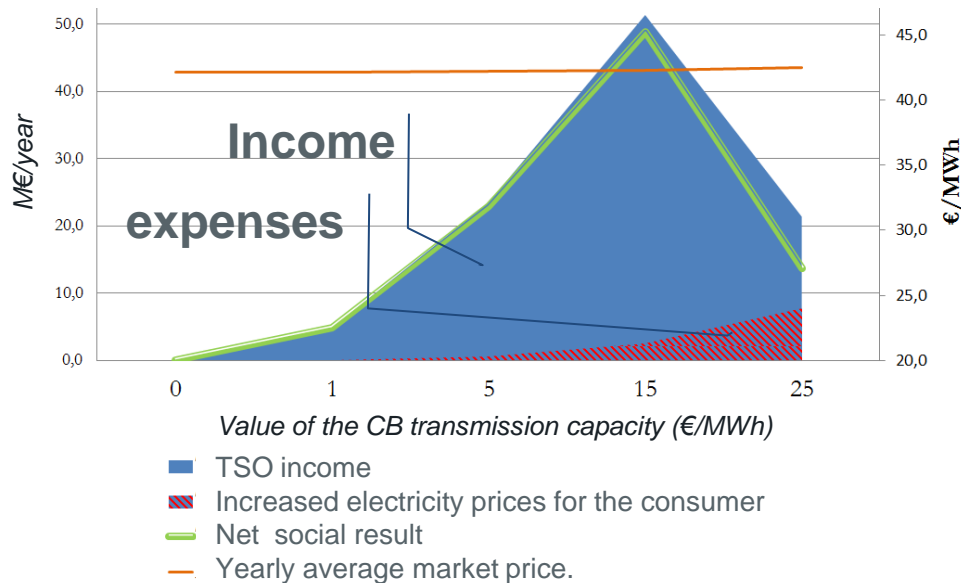


1. Permanent 3000 MW interconnection towards non-EU countries + 700 MW to Kaliningrad
2. Price difference between Baltic and Russian markets due to different regulatory regimes
3. Russian electricity can cover 70-80% of electricity consumed in EST, LV, LT
4. Proper regulation of electricity import from non-EU can only be regional



Actual value of the CB transmission rights between Baltic states and 3-rd countries is € 48 Million / year (currently provided for free)

Income from CB transmission rights and additional expenses to the consumers of electricity



Main conclusions:

- Optimal value for the cross-border capacity rights is 15 €/MWh
- In this case:
 - Net income of the Baltic society: 48 Million € / year
 - Average market price will increase 0,1 €/MWh
 - Import from Russia will decline by 1,5 TWh

Impact of the value of CB capacity to the Baltic electricity market price (2016)

		Yearly average value of Cross-Border capacity (€/MWh)				
	Unit	0	1	5	15	25
Yearly average price of electricity	€/MWh	42,1	42,1	42,2	42,3	42,5
Net income of Baltic TSO-s	M€/year	0,0	4,8	22,9	48,8	13,6
Number of hours per year when import from 3-rd countries will set market price	No. of hours	33	23	290	8	18
Sensitivity of market price to the explicit auctioning results	€/MWh	0,0	0,0	0,0	0,1	0,3
Imported electricity	TWh	4 915	4 855	4 693	3 415	842

Main challenges in Baltic countries

1. RES subsidies are not harmonised
2. Non-consistent RES development policy
3. Over-capacity in production
4. Non-performing CO₂-policy instruments
5. Exposure towards Non-EU markets will offset EU energy policy



Thank You!

